Digital Disruptive Intermediaries
Finding new digital opportunities by disrupting established business models
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Key Findings of the Report

1. Digital Disruption often feels sudden, yet the source of disruption has often been present, and even observed, for a while before it creates a significant impact.

2. It is key to understand the mechanics by which Digital Disruptive Intermediaries (DDIs) change the value flow in markets to uncover vulnerabilities and new opportunities in your business.

3. The current wave of emerging technologies are so disruptive because they both transform the way value is generated and change our thinking and understanding of how a market operates.

4. DDIs change the allocation of supply and demand by exploiting the flow of information, not the control of physical assets. Not only does this make them disruptive, it means they can grow extremely rapidly.

5. To prepare, incumbent businesses need to think systemically and experiment and innovate using digital technologies that are outside of their current, established business structures.

6. The biggest threat to incumbent businesses is their adversity to risk which prevents them from reacting even when disruptive change is upon them.
In a time of rapid and unpredictable change, it is better to be part of the disruption than a part of history.

We are currently in the middle of an unfolding era of disruption, driven by digital technology, that rivals the level of systemic change experienced during the industrial age. It is now as it was then; established business models and work practices that enjoyed success for decades are being challenged or are no longer viable. Now is the time to gain an overview and deeper understanding of the mechanisms by which this disruption happens so you can identify the opportunities and defend against the threats.

Digital Disruption refers to advancements in digital technologies that occur at a pace and magnitude that disrupt established ways of creating value within or across markets, social interactions and, more generally, our understanding and thinking. Whilst Digital Disruption is essentially an opportunity it is often seen as a threat as it destabilizes incumbent business models. In many cases it makes them redundant.

In this report we focus on, and examine in detail, the ways in which Digital Disruptive Intermediaries (DDI) change the way value is created and organized in different markets. Based on a market research and classification approach we unearth the main functions and eight archetypes that illustrate the different business models of DDIs. Moreover, we explore what this means for established companies, how to find the opportunities that it creates and defend against the threats it brings.

The disruptive power of DDIs

Driven by the convergence of technology trends, such as the digitisation of content, Web 2.0, mobile devices and the app economy, cloud computing and data analytics, DDIs are “information first” companies. Whereas incumbents derive competitiveness from the ownership of physical or other assets, DDIs get their edge from the superior utilization of information.

For example, disruptors such as Uber or Airbnb do not own the physical assets that deliver the primary service; they are disruptive and successful because they reorganize the allocation of supply and demand through the gathering and exploitation of information, often aided by sophisticated analytics. In this way they can achieve scale, and cause disruption, extremely quickly.

How do DDIs disrupt?

In the main part of this report we distinguish, and illustrate with examples, eight different DDI archetypes and the ways in which they innovate and disrupt various markets:

1. **Digital stores** aggregate supplier offers in comprehensive digital stores to provide online one-stop shops in order to own the customer experience.

2. **Content Hubs** disrupt the media industry and change the ways in which consumers interact with media services in an on-demand way.

3. **Sharing Hubs** enable the accumulation of user-generated content, over time threatening and competing with traditional mass media for consumer attention.

4. **Promotors focus** on price. They introduce price transparency and take on the role of channeling price-conscious customers to the best offerings.

5. **Aggregators** allow customers to easily compare information-rich products in fragmented markets that are often deliberately opaque.

6. **Discriminators** are built around customer opinions and reviews; they disrupt established ways of defining quality, particularly in service markets.

7. **Crowd Sourcers** gather customers to source services or suppliers via a digital platforms in a way that’s straight forward, leveling the playing field between large and small suppliers.

8. **Matchers** reorganize the allocation of demand and supply, in particular in formerly monopolized markets, disrupting established allocation mechanisms.

What can your company do to react?

Whilst disruption often feels sudden it is likely that the source of disruption has been around for a while. However, evolving disruption is notoriously hard to spot. We tend to try and predict the future by extrapolating what we know today and this approach doesn’t work for disruptive change. It is often unrecognized until it is too late as it is easy to miss or dismiss something that initially appears insignificant against the current understanding of how the market operates.

What this means is clear; a disruption to your market might already be under way, even if it is too small to have a real impact today. Our report will assist you in the identification of this disruption by describing the mechanisms by which DDIs are able to disrupt existing markets. We also identify a range of market conditions that are prone to disruption and can be tested against your industry and business model.

Enterprises that face or fear disruption must not be complacent. While it is often difficult to spot unfolding disruption when in its infancy, incumbent companies can follow a set of recommendations, outlined at the end of this report, that will increase their preparedness and responsiveness. In this time of rapid and unpredictable change it is better to respond and be part of this disruption than be a part of history.
What is DIGITAL DISRUPTION?
What is Digital Disruption?

Digital Disruption refers to changes enabled by digital technologies that occur at a pace and magnitude which disrupt established ways of creating value within or across markets, social interactions and, more generally, our understanding and thinking.

Threat and opportunity

Digital Disruption can be seen as both a threat and an opportunity. On the one hand the changes associated with new digital technologies unfold at a pace and scale that disrupt existing business practices and invalidate existing business models. On the other hand, digital technologies offer new opportunities for the creation of innovative business models for entrepreneurs to compete with established business practices in a wide range of industries.

Digital Disruption occurs on many levels:

1. People’s personal lives (example: mobile connectivity disrupts established work-life boundaries).
2. Work practices (example: new ways of communicating via social media changes the ways in which work is (self-)organised).
3. Business practices (example: workplace social media disrupts the way information travels in the organisation and induces shifts in power relationships).
4. Industry structures (example: new digital intermediaries exploit information asymmetries in ways that reshape traditional value chains).
5. Societal (example: social media participation disrupts traditional practices of public opinion making, journalism and politics).

While these examples point to profound changes to established business practices, they do not fully illustrate what exactly makes these changes so truly disruptive.

Disruptive innovation changes our thinking

Our observation is that disruptive change alters not only the ways in which we do business, but also more fundamentally how we understand the world, technologies, and products. Digital disruption changes the basis on which we make sense of, give meaning to, and understand our business and work-life practices.

An example might illustrate this. The emergence of devices such as the iPhone and iPad have changed not only how we consume content, communicate, learn, and perform various business practices, but also our understanding of what a computer or phone is, what counts as a workplace, and what an appropriate business meeting looks like. Furthermore, it has created a space for the emergence of new professional identities such as that of the modern tech-savvy road warrior manager. The nature and magnitude of these changes was hardly predictable when the iPhone and iPad were released.

Another example is mp3 and the changes brought about by the digitisation of music. Not only has the technology threatened and eventually invalidated incumbent technologies, business models and market structures, but it has fundamentally changed the role of, and our relationship with, music.

These observations are important because they reflect fundamental perceptual changes that influence customer behaviour at a large scale. Yet, these changes occur gradually and inconspicuously. New technologies are often dismissed initially as they are understood against the established technological standards of the time (“Mp3 has inferior music quality”, “The iPhone doesn’t have a keyboard”). Yet as the shift occurs, it is profound and going back is impossible – what was once established and normal is now old, out-dated and inferior (who wants to carry around CDs or use phones without touch screens?).

Digital Disruption not only impacts the ways in which we do business, but also more fundamentally how we understand the world, technologies, products and markets.
How does digital disruption work?

Digital disruption does not simply change markets or present innovative business ideas (although these are important results of disruption). It is not simply the digitisation of an existing business model or the replacement of a physical service or product with a digital alternative, such as placing university lecture content online or selling products through online shops. Disruptive change cannot be grasped by extrapolating into the future what we know today. Such an attempt at forecasting leaves out the innovation that market actors within traditional business practices engage in using digital technologies; they do not stand still and wait to be disrupted by some mysterious force. More importantly, as business practices change so does our understanding of what counts as meaningful, valuable, and the right way of performing these business practices, which brings about further changes.

What is required is an analysis of the mechanism by which successful digital disruption operates.

In this report we focus on the disruptive power of new, digital intermediaries, the mechanisms by which they disrupt, the typical market structures that are prone to be disrupted, and recommend how established businesses can take advantage of disruption.

"Digital Disruption cannot be understood by extrapolating into the future what we know today. This misses the role innovation plays."
DIGITAL DISRUPTIVE INTERMEDIARIES (DDI)
Disruptive intermediation occurs when a third party enters an industry and provides new digital services that challenge established business models and change the way in which value is created or distributed. We will call businesses that cause such disruption Digital Disruptive Intermediaries (DDIs).

Often, when viewed against the dominant technology of the time, the disruptive technology or service is seen as inferior in some respect and only targets a small market niche (Christensen, 1997). Yet through gradual improvements of the service and a change in the market’s perception about what is important about the service, the DDI is able to outperform its competitors, increase its market share, and reach a state of normalcy. Thus, the status quo that existed in that industry is disrupted and customers come to see former incumbents as obsolete.

For example, when mp3 first emerged, and even still, when Apple launched the iPod, the technology was dismissed by many as inferior to CD in terms of sound quality. Yet, over time, mp3 compression improved, but more importantly, new portable devices changed the role of music in society and what is regarded as important about the service (e.g., portability, mobility and connectivity of devices, instant gratification and enjoying music everywhere). As a result the technology became mainstream and disrupted the industry to the extent that a computer company became the largest seller of music world-wide.

It is self-evident today that digital disruptive intermediation is an important phenomenon that looms over many incumbent business models. Interestingly, when the World Wide Web first emerged, researchers and commentators predicted the opposite effect – dis-intermediation.

The dis-intermediation hypothesis

Intermediaries, or go-betweens, are service providers that function as a middleman between two parties. The intermediary channels the product or service from the supplier to the consumer and in most cases adds some value to the transaction (Bakos and Bailey 1997). Using an intermediary, the manufacturer or service provider can benefit by focusing on their core competency, saving through economies of scale and reaching a larger market with less effort.

Early research suggested that with the emergence of the Internet a move towards direct interaction between suppliers of goods and consumers would occur, implying that intermediaries would be cut out and gradually eliminated from the value chain (Malone et al. 1987). The incentives for this ‘dis-intermediation’ were said to be based on the fact that intermediaries tend to add costs in the supply chain in exchange for their services. Depending on the intermediation service they may increase overall costs and thus reduce the profit margin of suppliers (Benjamin and Wigand 1995).

Indeed, when viewed only from the point of view of the supplier certain incentives exist to cut out intermediaries. However, the above-mentioned authors focused mainly on the costs of the service and did not acknowledge the value these intermediaries add, particularly in fragmented and information-rich markets.

Cyber-mediation and digital intermediaries

Different from early views of intermediation, more recent research suggests that other scenarios such as re-intermediation and ‘cyber-mediation’ can be plausible and economically rational in many cases (Bakos and Bailey, 1997; Giaglis, Klein, and O’Keefe, 2002). Indeed, the commercialisation of the Internet and the emergence of mobile technologies, have given rise to waves of new intermediaries. The first wave (the dot.com boom) gave rise to e-commerce companies, online stores and new media companies. The second wave is currently under way; it is created by a swell of trends that overlap and converge, such as:

- The digitisation of content;
- The advent of the Web 2.0 and ensuing user participation;
- The emergence of mobile devices and app ecosystems;
- Cloud and service computing; and,
- Data analytics and recommender systems.

While DDIs often seem to appear over night, the underlying technologies emerge gradually and much more slowly.

Digital Disruptive Intermediaries (DDI)
DDIs are “information-first” businesses

The vast majority of today’s disruptive intermediaries utilise digital technologies. However, the use of digital delivery platforms should not distract from the fact that what sets these DDIs apart is their exploitation and analysis of information to create new services and network effects. By following an “information-first” approach (Battelle 2014), DDIs approach markets as a matter of information management rather than traditional resource deployment and exploitation. Consequently, their digital strategies rest on the gathering and exploitation of information in order to create novel digital services that capitalise on market inefficiencies.

DDIs have their strengths in connecting information in new ways, applying ranking algorithms (e.g. TripAdvisor), turning formerly physical products into fully digital ones (e.g. iTunes, Netflix), aggregating and re-arranging product information in fragmented markets (e.g. Lasoo), or matching supply and demand in new ways by creating new information streams (e.g. Uber).

In the following pages we provide a structured overview of typical functions of disruptive intermediaries, identify and illustrate a number of archetypes, and discuss typical conditions that favour DDIs.

Digital Disruptive Intermediaries (DDIs) change the dynamic and value distribution in established markets by exploiting and redirecting the essential streams of information.
The Research Approach

The aim of this study is to uncover the ways in which Disruptive Digital Intermediaries (DDIs) operate and the functions that they fulfill. This is done by examining the role of DDIs, what makes them disruptive, and the market conditions that foster their emergence.

The study is based on a market research approach involving three iterative analysis steps, which leads to a circular, rather than a linear research process.

Step 1: Identification of functions
We reviewed the literature on intermediaries to derive an initial list of typical intermediary functions (e.g. Bakos 1998, Giaglis et al. 2002). This list was then iteratively tailored, extended and streamlined as necessary during the classification and cataloguing exercise to finally reflect typical DDI functions (see table below).

Step 2: Classification and cataloguing
Based on the functions we analysed and classified the business models of well-known DDIs in order to derive a catalogue of DDIs (see page 26). For doing so we conducted online research and consulted public media, market research outlets and our own social networks of experts. Please note that the research did not aim to catalogue every possible DDI in the market, but rather to analyse and learn from those that have gained reasonable market and public visibility.

Step 3: Identification of archetypes
The classification of DDIs allowed us to derive a list of eight archetypes that display typical ways in which DDIs operate. These are described in the next section; together with two short case studies for each of the eight archetypes.

We identify eleven core functions that characterise the ways in which the eight DDI archetypes disrupt and add value to established market systems.

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<table>
<thead>
<tr>
<th>Function</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>Cataloguing</td>
<td>… provides a comprehensive and structured catalogue of products, content or services sourced from suppliers.</td>
</tr>
<tr>
<td>Bundling</td>
<td>… creates and offers integrated bundles of products, content or services, that are often sourced from multiple suppliers.</td>
</tr>
<tr>
<td>Reordering or Filtering</td>
<td>… offers functionality that allows customers to interact with, reorder or filter structured lists of products, content and services, in order to find a suitable offering.</td>
</tr>
<tr>
<td>Ranking &amp; Recommending</td>
<td>… uses algorithmic technology to rank-order products, content or services, based on certain criteria (e.g. quality) or to provide individualized recommendations for customers.</td>
</tr>
<tr>
<td>Delivering</td>
<td>… delivers digital content by way of downloads, online streaming or via a mobile App.</td>
</tr>
<tr>
<td>Hosting</td>
<td>… provides a cloud-based platform for the uploading, storage and accessing of user-generated digital content.</td>
</tr>
<tr>
<td>Sharing</td>
<td>… allows sharing of digital, often user-generated, content between users of the intermediary’s platform.</td>
</tr>
<tr>
<td>Intent Casting</td>
<td>… provides functionality that allows users to spell out their needs (intents) for sourcing a product, service or project funding from other users or suppliers of the platform.</td>
</tr>
<tr>
<td>Channeling Actors</td>
<td>… provides customers with the ability to select supplier-provided products, content or services and routes customers to the supplier’s digital platform.</td>
</tr>
<tr>
<td>Pricing functions</td>
<td>… engages in comparing and/or setting prices of products, content or services sourced from suppliers, sometimes by way of special pricing mechanisms.</td>
</tr>
<tr>
<td>Matching Actors</td>
<td>… offers ways of pairing customers with the right suppliers of products, content or services, often by way of specialized algorithms.</td>
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How companies are creating new value through

Archetypes of Disruption
Digital Disruptive Intermediaries: Finding new digital opportunities by disrupting established business models

**Digital Store**

**Supported Functions**

- Cataloguing
- Bundling
- Reordering or filtering
- Ranking & recommending
- Delivering
- Hosting
- Sharing
- Intent casting
- Channeling actors
- Pricing functions
- Matching actors

**Archetype Description**

Digital stores are one of the oldest and most well-established groups of digital intermediaries. They act as intermediaries between brand owners and consumers. For consumers, digital stores provide ubiquitous, 24/7 access to a large product catalogue, added convenience through home delivery and often improved information access. For brands, digital stores serve as a new, often additional sales channels. The main intermediary functions fulfilled by digital stores are the cataloguing and curating of products from a wide range of suppliers, the creation of product bundles, as well as the customer-oriented presentation of these. Typical for disruptive business models, early versions of digital stores offered less value and service than their incumbent counterparts. Yet, over time, as they made use of digital information and the analysis and utilization of customer data they have implemented features that are impossible to replicate offline. These disruptive features are mass personalization of product offerings, recommender systems and the provision of digital product samples. The use of customer data and the provision of personalized services has created a powerful inertia that has proven to be highly disruptive to incumbent retailers.

**Case Studies**

Amazon began trading as an online bookstore in 1994 but has since diversified significantly, now offering an extensive product catalogue including food, furniture, electronics, software, digital music, video-on-demand, and apparel. With an active user base of nearly 250 million and annual net sales of over $70 billion, Amazon is one of the world’s largest digital companies. Amazon operates under a ‘growth first’ strategy and reinvests all its profits into expansion and is currently trading in more than ten countries.

Customers search the product catalogue, online or via the mobile app, for products, adding them to an online cart. An important feature is collaborative filtering, whereby customers receive mass-individualised product recommendations. In 1999 Amazon revolutionised the check-out process by introducing ‘1-Click purchasing’ where billing and shipping information is held on file and a user purchases items with a single click.

Amazon has significantly disrupted the retail sector by not only making it easy to shop from home, but also by offering a vast range of products. In recent years Amazon has begun to offer its own internal capabilities as a service. This includes warehouse space, cloud computing, fulfilment, and e-commerce which are provided to other businesses, further spurring the disruption of bricks-and-mortar retail.

Expedia was launched in 1996 as a division of Microsoft, but was spun-off as a separate business in 1999. It is an Internet-based travel agency headquartered in Bellevue, Washington. Since launching they have become one of the world’s leading online travel companies, with sites in over 30 countries.

Customers can search and book airline tickets, hotels, car rentals, cruises, vacation packages, and other holiday services via the website or mobile app based on travel dates and location. There are hundreds of thousands of bookable properties, thousands of activities, and hundreds of airlines available through Expedia, allowing customers to define and purchase complete holiday bundles. In recent months the service has invested heavily in data analytics to provide more tailored travel services.

Expedia has disrupted the travel industry as consumers have switched from using travel agents to online alternatives that offer more choice, cheaper alternatives, and customer specific product bundling.
### Content Hub

**Supported Functions**

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<tr>
<td>Cataloguing</td>
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</tbody>
</table>

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**Archetype Description**

Content Hubs provide consumers with digital content for download or streaming. They act as intermediaries between content owners and the digital consumer. For consumers, using content hubs is all about easy access and convenience, where access is often facilitated directly from mobile devices via dedicated apps. For content owners, these hubs offer targeted access to often large groups of consumers, even though some content hubs charge significant fees for this access. The main function of content hubs is facilitating easy access to, and delivery of, digital content. In addition, they fulfill aggregating (e.g. via playlists) and recommender functions (e.g. via individualizing the streaming experience). Content hubs have emerged with the ongoing digitization of content and further grown on the back of the popularity of mobile devices. They have proven hugely disruptive to the retail and delivery function in content industries such as music, books and film. This disruption is ongoing and in some cases the intermediary has reached a market position that allows further disruption of other market functions. For example iTunes organizing concerts and allowing artists to sell directly to consumers, or Netflix beginning to stream movies at the same time as their box office start.

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### Case Studies

**The iTunes Store**

The iTunes Store is a software-based digital media store developed and operated by Apple Inc. It was launched in 2003, originally only providing music though this has been gradually expanded to include other digital content such as movies, TV shows and audio-books. It is available in over 135 countries.

Since its launch more than 35 billion songs and 200 million TV episodes have been bought and downloaded through the iTunes Store. It is estimated to represent a third of all music sales worldwide and dominates the digital music, video, and TV sectors in many countries, particularly in the USA. In 2013 it launched its own streaming service (iTunes Radio).

As a distribution channel it is highly disruptive, allowing independent labels to reach the same 800 million iTunes account holders as the major labels. It also introduced single-track purchases on music albums, re-defining the way people consume music. The iTunes Store is widely credited for saving the music industry although its dominance has been criticized by some for preventing healthy levels of market competition.

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**Netflix**

Netflix is a provider of on-demand Internet streaming media. It was started in 1997 with a DVD rental model that broke with the industry standard of “pay-per-rent” fees, replacing it with a monthly subscription. In 2007 Netflix launched its on-demand video rental via the Internet. The on-demand content service is now the world’s leading Internet television network with over 50 million members in more than 40 countries enjoying a billion hours of TV shows and movies per month.

For a flat rate monthly subscription customers can view any of the available content whenever they choose on a wide range of devices from smart TVs to streaming devices, video consoles, mobile devices and tablets. Unlike traditional pay TV pricing there are no packages or tiers with all content available to all customers.

Since its launch Netflix has disrupted the traditional TV network business model by removing the need for advertising, giving consumers control when, and on which device, they view content. Building on a growing customer base, Netflix continues to disrupt the industry. Recently, it has begun to co-finance films and offer major titles either exclusively on Netflix or on the same date as in theaters.
Flickr is a web and mobile photo management and sharing service for uploading, storing, organizing, and sharing photos. It was created and launched in 2004 by Ludicorp in Vancouver, Canada and acquired by Yahoo in 2005. The service is free, though a Flickr Pro option is available that removes advertising from the online and mobile experience. Members can share their content either publicly or privately online, and order print photo books through the site. All the content is covered under a Creative Commons license and Flickr strictly prohibits the use of the platform to engage in commercial activity. Nevertheless, Flickr has disrupted the photo distribution business as it has become a significant platform for sharing and promoting user-generated content with over ten billion photos online. Although it is not professionally curated this dwarfs the number of photos available on photo licensing sites such as Getty (80 million) or Shutterstock (35 million). Flickr photos are now frequently used by major media outlets.

Sharing Hubs offer platforms that allow consumers to upload and share self-produced digital content. They act as intermediaries between content producers and consumers, but the difference to Content Hubs is that actors can seamlessly adopt both roles. The main function of sharing hubs lies in the hosting of content for easy distribution among users, via either streaming or download. In addition, they also engage in aggregating, cataloguing, filtering and sometimes recommending content for users. Sharing hubs do not represent the digitisation of existing business models, but a true innovation that makes use of the digital space. As such, their disruptive potential to existing industries was limited at first. Yet, with increasing popularity, visibility and technological capability they have emerged as disruptive forces to traditional media companies. Their offerings (e.g. watching videos on YouTube) do not only compete with other media outlets for the increasingly limited attention span of consumers, many of them have also started to offer professional versions of their services or the hosting of professionally produced content. For example, Flickr and similar providers are disrupting established photo agencies with Pro offerings, while YouTube has begun to exclusively stream certain content, such as the Indian Cricket Premier League, thereby moving into direct competition with TV stations.

Case Studies

Flickr is a web and mobile photo management and sharing service for uploading, storing, organizing, and sharing photos. It was created and launched in 2004 by Ludicorp in Vancouver, Canada and acquired by Yahoo in 2005. The service is free, though a Flickr Pro option is available that removes advertising from the online and mobile experience. Members can share their content either publicly or privately online, and order print photo books through the site. All the content is covered under a Creative Commons license and Flickr strictly prohibits the use of the platform to engage in commercial activity. Nevertheless, Flickr has disrupted the photo distribution business as it has become a significant platform for sharing and promoting user-generated content with over ten billion photos online. Although it is not professionally curated this dwarfs the number of photos available on photo licensing sites such a Getty (80 million) or Shutterstock (35 million). Flickr photos are now frequently used by major media outlets.

YouTube is a video-sharing website that allows users to upload, view, and share videos. It was established in 2005 as an independent start-up and was purchased by Google a year later. One hundred hours of video are uploaded to the site every minute, with over one billion unique visitors every month. Private individuals upload the vast majority of content though in recent years media corporations, production companies, and music labels have used it as a platform to offer some of their material. The launch of the YouTube Partner Program in 2007 allowed private individuals to generate advertising revenues based on video views. Thousands of channels make six figure revenues through the program. Some individual channels have up to forty million subscribers and generate millions of dollars of revenue.

The YouTube Partner Program has disrupted the video distribution business as it has become a significant platform for sharing and promoting user-generated content with over ten billion videos online. Although it is not professionally curated this dwarfs the number of videos available on video licensing sites such as Getty (80 million) or Shutterstock (35 million). YouTube videos are now frequently used by major media corporations.
Promoter

Archetype Description

Promoters provide consumers with aggregated listings of pricing information or special deals on products. They act as intermediaries between retailers or brand owners and price-conscious consumers. For retailers or brand owners they offer new ways to gain customers by offering deals to customers. For customers, promoters are a way to gain price transparency in increasingly fragmented (online) retail markets. The main focus of promoters is on price. The main functions are the channeling of customers to the retailer web site based on price, the offering of special pricing functions and the cataloguing of products for easy comparison. Promoters capitalise on the increasing price consciousness of customers and market fragmentation. Their main disruptive potential lies in the price transparency they introduce, which puts downward price pressure on retailers and brand owners. Obviously this disruption is greatest in commoditised markets where products are standardised and easily comparable.

Case Studies

DealsDirect.com.au

Founded in 2004, DealsDirect is an end-to-end online-only retailer focused on offering bargains of all types of goods from big brands. Within less than a decade DealsDirect has delivered more than ten million products to four million customers, becoming Australia's leading online discount department store and one of the largest online retailers in the country.

DealsDirect started as an intermediary providing companies specialised support and skills to improve their sales through brokerage and trading surplus stocks on eBay's Auction platform. With this experience entrepreneur Paul Greenberg identified another opportunity; allow customers who are uncertain if they'll get the final deal, or that don't want to wait a couple of days for the auction to end, the option to buy immediately.

DealsDirect is disrupting the established market order, of both regular and online retailers, by understanding emerging customer needs and contributing to downward price pressure by offering significant pricing deals compared to traditional retail channels.

MyShopping.com.au

Online since 2005, MyShopping.com.au positions itself as Australia's leading shopping comparison website. This service is specialised on collecting detailed information about products and prices across a vast number of online retailers. This is then curated and filtered in a way that allows shoppers to quickly and easily compare offerings from multiple online stores. The consumer is redirected to the retailer's website to make the final purchase. MyShopping.com.au receives a fee for completed transactions.

MyShopping.com.au currently has more than 1.5 million online customers and disrupts the market by providing retailers (particularly the ones competing on price) with a powerful marketing tool that provides, regardless of a company's size, access to consumers and an efficient way to drive traffic to their websites. From a consumer perspective, price transparency allows them to quickly find where to buy a specific product for the best price without having to search multiple websites.
Established in 2007, Lasoo is one of the leading Australian online platforms for aggregating and cataloguing products from multiple brands. Lasoo serves as a ‘pre-shop’ search engine and is used by 1.6 million consumers. It operates by channelling customers through to the websites of retail stores to make a purchase and has a current ‘click-through’ rate of 53%.

By using Lasoo, consumers can quickly research and compare products across different brands. Consumers can obtain a comprehensive lists of suppliers stores and products, use filters to narrow search results, and create alerts and shopping lists. It also provides online views of printed retail catalogues.

By aggregating and organising fragmented markets, Lasoo has disrupted the retail industry by adding an optional intermediation business that adds significant value to consumers who are still in the research part of the customer lifecycle.

Launched in 2000, iSelect is a company that provides an online platform for service comparison. Using iSelect, consumers can compare insurance, household utilities, and personal finance products without having to research each individual provider separately. These products include health, car and home insurance, home loans, and broadband Internet plans. In markets characterised by multiple providers and frequently changing prices, iSelect aims to enable its customers to make an informed purchasing decision.

iSelect generates revenue by charging providers a commission when a customer uses the site to change to their service. For some providers, iSelect continues to collect a fee for as long as the customer stays with their new providers. In 2012 iSelect acquired Energy Watch, a retail energy product comparison service, to increase and diversify its revenue stream. In June 2013 the company completed its initial public offering and became listed on the ASX.

iSelect’s business model and growth creates a challenge for utility and insurance providers as it provides an easier way for consumers to compare product and price information across providers in markets where this is typically complex and time consuming.
Archetype Description

Discriminators are a major disruptive force. They list and rank products or services using a voting mechanism or algorithms. They offer customers with a structured overview and targeted recommendations in often fragmented markets. For service suppliers, they offer access to new customers. Where the ranking is based on quality, discriminators are a way to honour the efforts of high-quality service providers. The main function of discriminators is ranking and recommendations with the result always being an ordered list of offerings. This creates strong channeling effects as customers are funneled through to the online offerings of those suppliers that do well in the ranking. The ranking and ordering of offerings is effective since consumer attention is limited and research has proven that consumers tend to consistently pick offerings from the top items in search results lists. Discriminators capitalise on market fragmentation and introduce significant market disruption as they challenge and change the ways in which customers select services. This in turn puts pressure on service providers to comply with the ways in which the discriminator values quality and organises its ranking lists. Successful discriminators are able to change the existing market dynamic and shift bargaining power from the supply to the demand end.

Case Studies

Reddit is a social news and networking website that allows users to post content (in the form of links, text, or images) and to up/down vote submissions by other users. Since it was launched in 2005, Reddit has become one of the most popular digital information services attracting over 16 million unique monthly visitors.

Self-billed as the “front page of the Internet”, content on Reddit is organised into categories (e.g., educational, image sharing, technology, etc.) and thousands of ‘subreddits’ (e.g., funny, pics, world news, science, gaming, music, etc.) and curated exclusively by the site’s users. Items viewed negatively are down-voted, and those viewed positively are up-voted. Voting determines the location of an item on the website, with the most popular items appearing on the front page. Popular links can create a “Reddit effect”: a significant spike in a website’s incoming traffic emanating from a Reddit link.

Reddit’s disruptive impact lies in the way it changes the ways users seek out and consume information and news, shifting them away from traditional media and news outlets to user self-curated platforms.

TripAdvisor is a digital platform that provides reviews of hotels and restaurants around the world as well as a flight-booking function. Launched in 2000, TripAdvisor originally aimed to provide users with professional reviews of hotels and restaurants. A simple functionality that allowed visitors to add their own reviews quickly took off and topped the number of professional reviews on the website.

User-generated content has since become the website’s defining characteristic and main engine of growth. Based on the user-written reviews and, most importantly, simple scores awarded by the users, the site generates a rank-ordered list of providers by employing its own ranking algorithm.

TripAdvisor’s growth has heavily disrupted the travel industry. Traditionally hotel chains and restaurants spent substantial funds and took years to build and control their brands, focusing on highly structured and centralised quality ratings (e.g., the star system) to guide this. The rise of user-generated content has moved much of the control to a community of online users. This has disrupted and somewhat devalued existing professional quality assurance mechanisms in the industry and forced hoteliers to engage with and contribute to the emerging online conversation.
Archetype Description

Crowd Sourcers create digital platforms that allow actors to express their interests for the sourcing of services from other platform users. Crowd sourcers come in several different flavours that support everything from the sourcing of knowledge and design work to small task execution, ideas, funding or solutions to problems. For customers, they provide platforms for defining their projects, problems or requests as light-weight ‘requests for quotes’. These can then be shared with large numbers of registered service providers (the crowd) to find a single suitable supplier or, the reverse model, amassing funds from many small contributions (e.g. by creating micro-tasks or sourcing many small funding contributions). For suppliers they offer an interesting new way for presenting and offering their services to entirely new, often global customer audiences. The main functionality of crowd sourcers is what has recently been termed ‘intent-casting’. This means customers are able to express (cast) very specifically their service needs (intent). Crowd sourcers offer an innovative service that in most instances does not replace any existing business model. Yet, once established, crowd sourcers have the potential to fundamentally disrupt the service allocation in established markets such as software development, regional residential construction services or venture capital.

Case Studies

**DesignCrowd**

Founded in Sydney in 2008, DesignCrowd is an online crowdsourcing platform that connects businesses that pursue design projects with designers from around the world. Using the platform, businesses can manage their design project in a way that is cheaper, safer, faster, and more creative than has been traditionally possible.

A business can initiate a new project by posting a brief to describe the requirements of the project (e.g. logo design, webpage design, icon design, flyer design, etc.). There are currently 400,000 designers registered on the website who can send their design ideas to the business. The business can then interact directly with its chosen designer(s) to request edits and modifications. Notably, the business decides how much it is willing to pay, and the payment is made only after copyright ownership has been transferred from the designer. DesignCrowd earns revenue by charging a commission on each transaction.

DesignCrowd has grown rapidly with its revenues rising by more than 500% between 2011-2013. While crowdsourcing design only accounts for less than 1% of the design done by creative agencies, DesignCrowd’s success places the company in competition with traditional design agencies with some of them looking to incorporate crowdsourcing into their business model.

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**Kickstarter**

Kickstarter is an online crowdfunding website that aims to help creators bring their projects to life by soliciting small contributions from the crowd. Since its launch in 2009, 7.2 million people have pledged $1 billion, funding 71,000 creative projects in the process.

Creators can list their projects in one of 15 categories (e.g. arts, film & video, music, technology, etc.) and set their own funding goal and deadline. Unlike other crowdfunding platforms, Kickstarter employs an all-or-nothing policy: backers of projects pledge a certain amount of money, but the creators only get that money if the total amount of pledges reaches or exceeds their funding goal, in which case Kickstarter collects a 5% commission.

Kickstarter’s business model has disrupted many existing fundraising and investment channels. By affording creators unmediated access to a large number of potential backers, the website enables the development of projects that are in their early developmental stages. Furthermore, unlike many other fundraising and investment channels, in the Kickstarter model entrepreneurs retain creative control over their projects.
**Matcher**

**Supported Functions**

- Cataloguing
- Bundling
- Reordering or Filtering
- Ranking & Recommending
- Delivering
- Hosting
- Sharing
- Intent Casting
- Channeling Actions
- Pricing Functions
- Matching Actions

**Archetype Description**

Matchers create digital services that organise the allocation of services to customers in innovative ways. For customers, they offer convenient ways of finding the right provider of a service. For suppliers, they are a way of securing business by being matched to the right customers. The main functionality of matchers lies in specific features to effectively organise the matching process. These can be sophisticated search and filtering features, as in the case of Momondo or AirBnB, auction mechanisms such as eBay, or algorithmic solutions that operate on location information, as is the case with Uber. In any case, the platform does not just list the products or service offerings but actively assists in the matching process. For doing so they often offer a form of intent casting to give customers the opportunity to specify their need for a matching service. Matchers are disruptive because their market entry upsets existing market allocation mechanisms. They typically operate in industries in which matching was not organised effectively or efficiently previously, for example because of the existence of monopolised distribution channels.

**Case Studies**

**Airbnb** is a privately owned company that operates a website to connect travelers with private hospitality providers. The San Francisco based company has grown rapidly since it was founded in 2008: it currently has over 800,000 listings on its website and served over 20 million guests in 190 countries. It is on track to become the largest hotel chain in the world, without owning a single hotel.

Anyone can become a host on airbnb by listing their property on the website and determining the price that they wish to charge. Guests can search for properties using a variety of filters such as date, location, price, and amenities. Airbnb’s merit system allows guests and hosts to leave references and ratings which are displayed publicly. Airbnb’s main role is to match guests with the right hosts.

Airbnb’s strategy disrupts existing business models within the hospitality industry which has raised regulatory challenges. For example, the company has been accused of breaching laws related to short-term rental agreements. Tax issues have been particularly prominent with regulators in different cities pushing for Airbnb stays to be charged with a local hotel tax.

**Uber** is a venture-funded startup company that offers a smartphone app that connects passengers with drivers of vehicles for hire. Uber was founded in March 2009 and launched its mobile app in 2010. Originating in San Francisco CA, today Uber’s services are available in over 70 cities in 33 countries and the company was recently valued at $17 billion.

Passengers can hail an Uber car on their smartphone and the Uber application shows where the car is and measures its arrival in minutes. Passengers can also text or call the driver to make sure they are on their way. In the Uber system, passengers and drivers rate each other and can choose not to engage with others who are poorly-rated.

Uber’s new business model (the company doesn’t own any cabs or employ any drivers) has disrupted local taxi and limousine markets. This has led to tough resistance from the taxi industry and, in some cases, from governments, in an attempt to protect the existing market structure. For instance, in January 2014 the French government introduced a bill that requires Uber drivers to wait 15 minutes before picking up a passenger.
Market conditions favouring disruptive intermediation

“Digital Disruption often grows on fertile ground. Incumbent businesses need to understand what factors might make their own market prone to disruption.”

Some DDIs innovate to create entirely new business models that were impossible in the pre-digital era. Yet, others exploit inefficiencies and inadequacies in existing industries, often by using information in novel ways. These players challenge incumbents in (quasi) monopoly positions or introduce order into previously fragmented markets.

From our analysis of cases and archetypes, we identified the following market conditions that favour digital disruption:

**Market Fragmentation**

Fragmented markets are those with many small suppliers or providers. Market fragmentation makes it laborious for customers to do the research needed to understand, compare, or access products or services. DDIs capitalise on these market conditions by becoming a single point of access for customers, cataloging services and improving accessibility to the offerings of multiple suppliers. Typical examples are Aggregators such as Lasoo.com.au or Discriminators such as Airbnb.

**Information richness and lack of transparency**

In some industries products are particularly complex and information rich, which makes product research and comparison a difficult task. In these markets suppliers often deliberately increase the number of available options and associated price points to make product comparisons complex for customers. Examples are insurance, telecommunications and financial products. DDIs, such as iSelect.com.au, specialise in unpacking this complexity by offering structured comparison and filtering mechanisms that help customers filter the market.

**Inefficiency of existing monopolies or structures**

Some industries have built out proprietary value distribution structures over time, which allow the monopolisation of customer access to services. Such monopolies can be the result of regulation or inertia of existing technology frameworks, yet they always result in structures that favour some actors who appropriate significant rent from their market position. However, these industries find themselves ripe for disruption when DDIs find ways to utilise digital technologies that change the flow of information. Examples of DDIs disrupting existing monopoly structures are Uber in the taxi transport market or Netflix in the market for television content.

**Convenience limitations of the physical channel**

Limitations of the physical channel are another frequently observed industry characteristic that favour disruptive intermediaries. Many physical distribution channels find themselves disrupted by services that aggregate and present information in ways that significantly increase customer convenience. For example, digital stores allow shopping from home: Content Hubs provide instant access to media content without the need to visit a store.

**Lack of market access**

Lack of access is an issue that affects primarily small businesses and individuals who want to offer their services in industries that are dominated by larger businesses. DDIs can capitalise on these conditions by setting up platforms that removes the challenge of marketing their services as sole businesses. Examples of DDIs that capitalise on lack of market access are typical crowdsourcing and crowdfunding platforms that allow freelancers and small projects to find a much larger audience. Other DDIs benefiting from this condition are Uber, who open the transport market to private drivers, or Airbnb, who allow anyone to rent out their property.

**High variations in service quality**

In industries where products are commoditised, such as in retail or media, product quality is easy to ascertain. However, in many service industries, such as tourism and hospitality, financial advice, or construction, renovation and repairs, quality can fluctuate quite heavily creating uncertainty and risk for customers. Here, DDIs can add significant value by aggregating and presenting feedback collected from customers to inform decision-making. Prime DDI examples are Trip Advisor or Yelp, which provide ranking systems for hospitality services based on customer feedback.
What does Disruption mean for my Business?

Ironically, for incumbent businesses it is often their in-built adversity to risk that presents as the biggest risk in the face of disruption.

Although disruption often feels sudden, the source of disruption has likely been around for a while. Why does disruption often take incumbents by surprise? As we’ve said previously, disruptive change cannot be grasped by extrapolating what we know today into the future. When we evaluate the impact of emerging technologies against existing standards we tend to miss the role innovation has to play in creating new and unknown possibilities and implications. This is especially true for large enterprises; it is easy to miss something that initially appears insignificant against the current understanding of the market. What this means is clear; a disruption to your market might already be happening, even if it is too small to have a real impact yet.

Preparation for Disruption

1. Think systemically: using the archetypes and market conditions outlined in this report try spotting the significant in the insignificant. Maybe disruption is already happening, but potential disruptors are still small and thus dismissed. A fresh look might reveal a bigger threat than initially thought. Compare this to trajectories in already disrupted markets. What happened to the market system there? Where would a similar change leave you?

2. Engage with customers: not necessarily your own, but those who choose the alternative. It is their perspective that potentially decides the game, not what the incumbent company believes.

3. Create a spin-off or innovation team: there are likely to be people internally that can see challenges but are dismissed; get these people to work with you rather than risk having them leave and join your competitor because they are being ignored. Often these people are driven by a burning desire to explore, disrupt and innovate from within. It is far better to let this ‘burning desire’ help you prepare, than be left behind and risk having to react to a ‘burning platform’ when external disruption gains momentum. Remember though that the goal here is not to abandon old for new, but to learn and better understand new technologies to be able to evolve the core business and integrate emerging technology where it makes sense.

4. Allow experimentation: large organizations are built around risk management, failure prevention, and compliance. Ironically, these structures and mindsets become the greatest risk to the business in the face of disruption as they slow the business down. Remember, not only do disruptors see the opportunity sooner, they are also naturally faster in their execution and are prepared to experiment, because they are not bound to the legacy of the current market system. Thus, the sandbox/innovation team must be able to govern differently. When people are afraid to fail they will remain on safe grounds and there will be little true innovation and preparation for disruption.

5. Empower employees: large organizations have a huge advantage over small ones. They can see with a thousand eyes and draw on the ideas of a thousand people. Unfortunately, management structures are often not geared towards listening. It is important to create openness, transparency and improve the free flow of information and ideas. New social networking technologies that, with the involvement of leadership, allow this conversation to be initiated among a broader employee cohort.

In summary, don’t be complacent. Keep testing, keep preparing, keep looking for opportunities. In a time of rapid and unpredictable change, it is better to be part of the disruption than a part of history.
# Classification Table & References

## References:


The Australian Digital Transformation Lab is a joint venture between The University of Sydney Business School and Capgemini Australia.

Digital technologies are disrupting established business models, but at the same time open new opportunities for digital innovation and new business ideas. The Lab will investigate issues related to the digital transformation of Australian businesses and industries.

2. Digital transformation of work and organisation: Digital technologies enable new forms of work, work place communication and work organisation. The Lab will focus on the impact of new technologies with a focus on the successful management of digital transformation utilising technologies such as Enterprise Social Networking.

About the Authors

Kai Riemer is Associate Professor and Chair of Business Information Systems at the University of Sydney Business School. Kai's research is focused on Enterprise Social Networking, e-Collaboration, inter-firm networking, virtual work, and E-Commerce. He has developed methods for team communication, enterprise social network adoption and collaborative business practices.

Uri Gal is a Senior Lecturer in the Discipline of Business Information Systems. Uri's research takes a social view of organisational processes in the context of the implementation and use of information systems. He is focused on the relationships between people and technology in organisations, and changes in work practices, organisational identities, and the introduction of new information systems.

Jakob Hamann is a postgraduate student of Information Systems at the University of Göttingen (Germany) and a research visitor with the Discipline of Business Information Systems at the University of Sydney Business School. Jakob’s research is in the field of digital disruption. Prior to coming to Sydney Jakob spent a year at the Universitat Autònoma de Barcelona in Spain, and as a working student at the Cooperation Systems Centre Munich.

Dr. Ben Gilchriest is an executive consultant and entrepreneur who works with leaders to achieve breakthrough value from digital. He is focused on the innovative application of emerging technologies to improve the customer experience and drive new customer and business value. He has founded and led multiple ventures in Europe, Australia, SE Asia and North America. He is currently based in Los Angeles, USA.

Martim Teixeira is a Manager within Capgemini Australia, specialised in Customer Experience and Digital Transformation, including Strategy and Operations. Martim has an extensive consulting experience including the Big4 and has worked on a series of engagements in Australia, Europe and Africa.

Australian Digital Transformation Lab.

The Australian Digital Transformation Lab is a joint venture between The University of Sydney Business School and Capgemini Australia. It combines the established academic research skills and knowledge of the Business School’s Discipline of Business Information Systems with Capgemini’s expertise and leadership in business transformation and organisational change.

The Lab will engage in a range of research activities and produce studies in the following two key areas:

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